DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-024749 Address: 333 Burma Road **Date Inspected:** 07-Jun-2011

City: Oakland, CA 94607

OSM Arrival Time: 1900 **Project Name:** SAS Superstructure **OSM Departure Time:** 700 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: See Below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

Bridge No: 34-0006 **Component:** OBG

Summary of Items Observed:

CWI Inspector: Mr. An Qiang Xiang

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG Trial Assembly

ZPMC presented QA personnel with "Notification of Witness Inspection" document number 09392 that stated ZPMC was requesting Caltrans to perform visual and magnetic particle (MT) inspections of various OBG segment 13AW welds at the trial assembly area. This QA Inspector performed random visual and magnetic particle (MT) inspections of the following welds: Item #4: welds SEG3013L-105, 104, 103, 102, 101, 100, 098, 095, 092, 074, 075, 077, 078, 080, 081, 083, 084, 087, 032, 034, 038 and 040. Items observed by this QA Inspector appeared to comply with AWS D1.5 MT requirements. For additional information on these inspections see this QA Inspector's TL6028 Magnetic Particle Test Report.

Notification 09392 also lists various welds to be MT inspected on SEG3013AA, item 2; SEG3013N, item 3; SEG3013AX, item 5; and SEG3013X item 6. Many of these welds could not be MT inspected due to the welds being wet as the result of recent rain. ZPMC intended to move OBG segments 13A/B/C to a different location at

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23:00 hours and ZPMC cancelled this notification at around 23:00 hours. .

This QA Inspector observed ZPMC welder Mr. Wang Guijun, stencil 067275 used shielded metal arc welding procedure WPS-B-P-2213-FCM-1 to make segment 14Wwelds OBW14A-012 and 013. This QA Inspector observed a welding current of approximately 140 amps the base material had been preheated with a torch and Mr. Wang Guijun appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wang Rucheng, stencil 066881 used shielded metal arc welding procedure WPS-B-P-2213-FCM-1 to make segment 14Wwelds OBW14A-012 and 013. This QA Inspector observed a welding current of approximately 150 amps the base material had been preheated with a torch and Mr. Wang Rucheng appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Pan Ming, stencil 066674 used shielded metal arc welding procedure WPS-B-P-2213-FCM-1 to make segment 14Wwelds OBW14A-012 and 013. This QA Inspector observed a welding current of approximately 155 amps the base material had been preheated with a torch and Mr. Pan Ming appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Xu Kesong, stencil 070009 used shielded metal arc welding procedure WPS-B-P-2213-FCM-1 to make segment 14Wwelds OBW14A-012 and 013. This QA Inspector observed a welding current of approximately 160 amps the base material had been preheated with a torch and Mr. Xu Kesong appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devey +8615000026784, who represents the Office of Structural Materials for your project.

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Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Riley,Ken	QA Reviewer